

**REMARKS:**

This paper is herewith filed in response to the Examiner's Office Action mailed on July 30, 2007 for the above-captioned U.S. Patent Application. This Office Action is a rejection of claims 1-28 of the application. The Applicant disagrees with the rejection.

More specifically, the Examiner has rejected claims 1-6, 10-15, and 19-24 under 35 USC 103(a) as being unpatentable over Elg (WO99/37106) in view of Upadrasta (US5,872,820).

The Applicant notes that claims 1, 10, and 19 have been amended to even further clarify the claimed subject matter. Claims 2-9, and 20-28 have been amended accordingly. No new matter is added.

In the rejection of claim 1 the Examiner states:

“Consider claim 1, Elg teaches a low power radio frequency transceiver arranged to form a network of communicating low power radio frequency transceivers comprising:

a transmitter for transmitting packets of data (page 3 line 29 through page 4 line 9); and controlling the transmitter to transmit a series of messages of a first type outside the network of transceivers (page 6 lines 15-21).

**Elg does not explicitly show that punctuating the series of messages of a first type with messages of a second type, transmitted within the network of transceivers, for maintaining synchronization.**

**In the same field of endeavor, Upadrasta teaches punctuating the series of messages of a first type with messages of a second type, transmitted within the network of transceivers, for maintaining synchronization (fig. 1 col. 1 line 56 through col. 2 line 21 and col. 3 lines 1-9).”**

The Applicant respectfully disagrees with the rejection.

Claim 1 recites:

An apparatus comprising: a transmitter for transmitting packets of data; and means for controlling **the transmitter to transmit a series of messages of a first type outside a network of low power radio frequency transceivers**, the apparatus being arranged to form the network of transceivers, **means for punctuating the series of messages of a first type with messages of a second type, transmitted within the network of transceivers**, for maintaining synchronization.

As cited Upadrasta discloses:

“The message frame numbers of the base station sub-system and mobile frame number counter values are continuously incremented to track the progression of frame numbers in real-time. To effect synchronization, the mobile station loads a first message frame number into the mobile frame number counter, regardless of the current value the counter may hold, **when a first message frame is received from the base station sub-system and decoded by a digital signal processor for the first message number**. The mobile station listens again for a second message frame and stores the value of the mobile frame number counter into a register or memory location. The digital signal processor decodes the second message frame for a second message frame number. **When the second message frame number is decoded, the second message frame number is sent to the controller. The controller calculates time lag as the difference between the value of the mobile frame number counter as stored in the register or memory location and the second message frame number**. The time lag represents the delay in decoding and sending the frame number to the controller. The amount of time lag is added to the mobile frame number counter of the mobile station so that the mobile frame number counter is synchronized with the base station sub-system,” (emphasis added), (col. 1, line 65 to col. 2, line 21).

The Applicant notes that Upadrasta discloses a cellular network (e.g. built around GSM) that includes a base station sub system (BSS) 100, mobile stations 110, 130, and a network switching sub system (NSS) 120. The network switching sub system handles switching of messages **incoming to the cellular network** area governed by the BSS 100.

In Upadrasta in order to synchronize the mobile stations 110, 130 to the BSS 100, the radio 260 in the mobile stations 110, 130 first tries to detect a frequency correction burst (FCB) 402 from the BSS 100. Once an FCB 402 has been detected, the mobile stations 110, 130 listen for a synchronization burst (SCB) 412. The SCB 412 enclose the frame number information which is used for synchronizing a mobile frame number counter 280 in the mobile stations 110, 130 with

the frame number counter 253 in the BSS 100.

Upadrasta discloses:

“The controller tunes the radio to listen for an explicit frequency based on signal strength of received signals and is thus able to **determine which FCB, of the many that may be broadcast over the entire spectrum**, is destined for that particular MS.

**Once FCB 402 has been detected, the controller listens for a Synchronization Burst (SCB) 412** as shown in frame 410 of FIG. 4. The SCB 412, which is also carried on burst/slot 0 of the frames, **encodes the frame number information** and has a distinct signal strength. **The DSP decodes the frame number information carried within SCB 412 and sends frame number information to the controller.** Using the frame number information of the SCB 412, synchronization may be achieved, but must also correct for the time lag that may occur in decoding the frame number information and passing it to the controller,” (emphasis added), (col. 4, line 59 to col. 5 line 7).

Further, in Upadrasta in order to account for **time delays** in processing the SCB 412, the BSS 100 transmits two message frame numbers (FN1 and FN2) at two different times. The mobile stations 110, 130 determine the time difference between the two message frame numbers and use the result to determine the time delay. The resulting time delay is subsequently added to the mobile frame number counter 280 (see Fig.6 for example).

The Applicant argues the synchronization burst 412 consisting of an encoded frame number apparently sent sometime after an FCB 402 is detected can not be seen to disclose or suggest at least “**punctuating the series of messages of a first type with messages of a second type**,” as in claim 1.

The Applicant notes that it is not clear which features in Upadrasta the Examiner considers to be analogous to the first and second type of messages as recited in the claims. The Applicant submits that it appears from the passages referred to in the rejection that the Examiner equates the messages which need be sent to the NSS 120 to be the first type of messages (which are

transmitted outside the network) and the SCB 412 to be the second type of messages (which are transmitted within the network).

As cited by the Examiner Upadrasta discloses:

**“NSS 120 is the interface allowing mobile stations to receive and transmit information to other networks** such as a Public Switched Telephone Network (PSTN). **Since communications between the mobile stations and the BSS 100 are the primary focus of synchronization, the NSS 120 will not be discussed in detail,** (emphasis added), (col. 3, lines 4-6).

Firstly, the Applicant notes that as disclosed in claim 1 **messages of the first type are transmitted outside the network**. Thus, the Applicant contends that even if Upadrasta can be seen to be “**punctuating**” messages, which is not agreed with, in order to support the rejection the paragraphs cited in Upadrasta are required to disclose that messages of the first type are sent to the NSS 120 and/or some other device **which is outside the network** in Upadrasta. The Applicant notes that as cited by the Examiner Upadrasta appears instead to disclose that **communications inside the network** are “**the primary focus of synchronization.**” Thus, the Applicant contends that even if Upadrasta is seen to disclose or suggest “punctuating” messages (which is not admitted in this case), Upadrasta can not be seen to be **punctuating the series of messages of a first type transmitted outside the network** as in claim 1.

Similarly, the Applicant contends that even if Upadrasta is seen to be “punctuating” messages (which is not admitted in this case), in order to support the rejection the paragraphs cited in Upadrasta must disclose that the **messages of the first type, which are transmitted outside the network, are punctuated with messages of the second type transmitted within the network** as in claim 1. The Applicants argue that Upadrasta does not disclose or suggest that messages such as the SCB 412 messages **are destined for the NSS 120 and/or other device outside the network**, or even disclose or suggest that **any other messages** are destined for a device that is outside the network. Thus, for at least these reasons the Applicant contends that Upadrasta is not seen to be punctuating messages of the first type with messages of the second type transmitted

within a network as in claim 1.

Further, the Applicant notes that as illustrated in Figure 2 of Upadrasta it appears that the BSS 100 has a dedicated transmitter 255 for transmitting frames to the mobile stations 110, 130. The Applicant contends that there is no disclosure in Upadrasta that the transmitter 255 also transmits messages to the NSS 120 and/or any device outside the network. Moreover, the Applicant contends that Upadrasta does not disclose or suggest that the SCB messages 412 are even **“punctuating”** the messages to the NSS 120.

Alternatively, the Applicant notes that if the examiner believes that the SCB messages 412 is **“punctuating” other messages in the frame 401**, the Applicant contends that the other messages in the frame **are still not seen to be transmitted outside the network** for at least the reason that they are also destined for the mobile stations 110, 130 which are inside the network.

The Applicant contends that for at least the reasons stated Upadrasta clearly can not be seen to disclose or suggest at least **“punctuating the series of messages of a first type with messages of a second type, transmitted within the network of transceivers, for maintaining synchronisation”** as in claim 1.

Furthermore, although the Applicant does not acquiesce that the combination of ELG and Updrasta is feasible, the Applicant contends that even if the references were combine for at least the reasons stated the combination would still not disclose or suggest claim 1. Thus, the rejection of claim 1 is seen as improper and the rejection should be removed.

Further, for at least the reasons stated the references cited are not seen to disclose or suggest at least where claim 10 recites in part **“punctuating a series of messages of a first type transmitted by a master transceiver outside a network of low power radio frequency transceivers, the network of transceivers comprising the master transceiver and at least one slave transceiver.”**

In addition, for at least the reasons stated the references cited are at least not seen to disclose or suggest where claim 11 recited in part “means for **punctuating transmission of a series of messages of a first type** comprising a first synchronization word independent of the identity of the low power radio frequency transceiver, with messages of a second type comprising a second synchronization word dependent upon the identity of the low power radio frequency transceiver.”

Furthermore, for at least the reasons already stated the references cited are at least not seen to disclose or suggest where claim 19 recites in part “a controller for controlling **the transmitter to transmit a series of messages of a first type outside a network** of low power radio frequency transceivers, **the apparatus being arranged to form the network of transceivers, and for punctuating the series of messages of a first type with messages of a second type**, transmitted within the network of transceivers, for maintaining synchronization.”

In addition, for at least the reason that the claims 2-9; 12-18 and 28; and 20-27 depend from claims 1, 10, and 19 respectively, neither Elg nor Upadrasta is seen to disclose or suggest these claims, and all the claims 1-28 should be allowed.

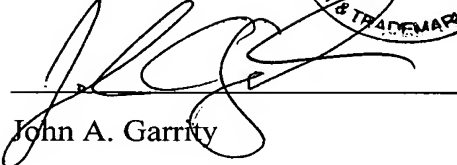
Based on the above explanations and arguments, it is clear that neither Elg nor Upadrasta can be seen to disclose or suggest claims 1-28. The Examiner is respectfully requested to reconsider and remove the rejections of claims 1-28 under 35 U.S.C. §103(a) and to allow all of the pending claims 1-28 as now presented for examination.

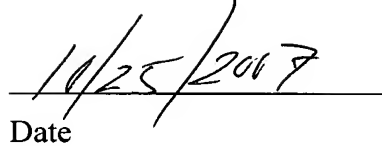
For all of the foregoing reasons, it is respectfully submitted that all of the claims now present in the application are clearly novel and patentable over the prior art of record. Should any unresolved issue remain, the Examiner is invited to call Applicants' attorney at the telephone number indicated below.

Respectfully submitted:

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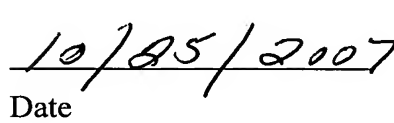
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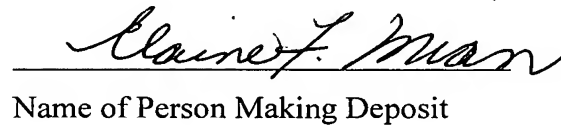
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